

Attorney Docket Number 990011.ORI

TEE UP GOLF PRACTICING DEVICE

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This application is a nonprovisional patent application based on provisional patent application 60/455,065 filed 03/12/2003.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates generally to automatic golf ball teeing devices and more specifically a device having all the components in one suitcase like package, which has a reservoir of golf balls at the top, with a gravity feed, and automatic ball dispensing for placing golf balls on a tee.

Description of the Prior Art.

Automatic golf ball positioning devices have been in use however they have suffered from several drawbacks. The main problem with conventional automatic golf ball positioning devices are that they are not dependable (they do not work 100% of the time), the golf balls get stuck on the way and /or they over run the tee. Another problem with conventional automatic golf ball positioning devices is that they are expensive and cumbersome to transport from one location to another. Another problem with some automatic golf ball positioning devices is that they need electric power to work. Other golf ball teeing devices have to be bolted to a base to keep the device aligned with the tee.

SUMMARY OF THE INVENTION

The portable golf ball teeing machine is housed in a suitcase like package, that opens to provide a flat pad with replaceable artificial grass and a tee on a support perpendicular to a golf ball dispensing gravity feed mechanism. The portable golf ball teeing machine uses a gravity feed and an activating pedal which is activated by pressing on it, usually with the end of a golf club. The golf tee is replaceable should it become worn. The golf tee can be of several different heights to suit the desires of the user. The side of the portable golf ball teeing machine opens from the suit case like housing by being hinged at the base of the housing and folds out perpendicular to the housing with the tee in alignment for use with the ball placing arm. The tee is mounted on a pad having artificial grass to simulate teeing off on a golf course. The artificial grass is snapped on to the pad and can be easily replaced. The gravity feed portable golf ball teeing machine does not require electricity to operate.

OBJECTS OF THE INVENTION

It is an object of the present invention to provide an automatic golf tee up device for golf practice at home, in the office, or in the field, having all the components in a suitcase like package, that opens to provide an upright gravity fed automatic ball dispensing portion with a perpendicular pad having a golf tee and artificial grass.

Another object is to provide an automatic golf teeing device for practicing golf swings that works well indoors and outdoors, and does not have to be anchored to the ground.

Another object is to provide a tee up golf practicing device that is molded out of impact resistant thermoplastic resin, which will withstand the impact of a misdirected golf ball or a hit by a golf club.

Another object is to provide a tee up golf practicing device that will be capable of storing a large number of golf balls, and placing them efficiently on a tee.

Another object is to provide a tee up golf practicing device that to provide a device that will be easy to transport from one location to another, and will lock in to a suitcase like case with a handle.

1 Another object is to provide an automatic golf ball teeing up device that will have an
2 activating pedal for releasing a golf ball to be placed on the golf tee.

3 Another object is to provide a tee up golf practicing device that has the capability of
4 accepting alternate tee heights.

5 Another object is to provide a tee up golf practicing device that is modular, so that it is
6 easy to assemble and such that broken or worn parts can be easily replaced.

7 Another object of the invention is to provide a teeing device which does not require
8 alignment of the tee with the placement device so that the golf balls are always delivered aligned
9 with the tee.

10 Other objects, advantages and novel features of the present invention will become
11 apparent from the following description of the preferred embodiments when considered in
12 conjunction with the accompanying drawings.

13 14 15 **BRIEF DESCRIPTION OF THE DRAWINGS**

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17 FIG. 1 is a side perspective view of the portable golf ball teeing machine with the tee pad
18 in the closed position with the top closed for carrying the device.

19 FIG.2 is a side perspective view of the portable golf ball teeing machine with the top
20 open and golf balls placed in the magazine.

21 FIG.3 is a side perspective view of the portable golf ball teeing machine with the tee pad
22 perpendicular to the housing and the tilting ramp in the up position.

23 FIG. 4 is a side perspective view of the portable golf ball teeing machine with the tee pad
24 perpendicular to the housing and the tilting ramp in the down position.

25 FIG.5 is a top perspective view of the top portion of the portable golf ball teeing
26 machine.

27 FIG. 6 is a side perspective view of the housing of the portable golf ball teeing machine.

28 FIG. 7 is a side perspective view of the portable golf ball teeing machine from below to
29 show the activating pedal.

30 FIG.8 is a perspective view of the bottom of tee pad.

1 FIG. 9 is a top perspective view of the tilting ramp.

2 Fig. 10 is a cross sectional view of a tee.

3 Fig. 11 is a perspective view of the telescoping shag stick extended.

4 Fig. 12 is a perspective view of the telescoping shag stick collapsed.

5 Fig. 13 is a cut away perspective view of the locking mechanism of the shag stick.

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8 **DESCRIPTION OF THE PREFERRED EMBODIMENT**
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10 The portable golf ball teeing machine 10 is shown in Fig. 1 folded up onto a suitcase like
11 configuration for easily transporting it to a location for use. The portable golf ball teeing machine
12 10 is assembled from three major components, a top portion 20, an upright housing 30, and a tee
13 pad 40.

14 As shown in Fig. 6 the upright housing 30 has a back wall 131, a first side wall 132, a
15 second side wall 133, and a base 134. The front wall is the tee pad 40 when it is pivoted into its
16 upright position.

17 The top portion 20 has a handle 21 pivotably attached to rails 22 on the top of the lid 23.
18 Lid 23 is hingedly attached to top portion 20 by living hinges 28 as shown in Fig. 5. The lid 23
19 has a lip 24 with a ridge 25 which locks by overlapping a latch ridge 41 on tee pad 40 to lock the
20 tee pad 40 in the upright position and the lid 20 to the tee pad 40 such that the lid 20 will stay
21 closed when the portable golf ball teeing machine 10 is carried by its handle 21. The lid 23 is
22 opened by pressing the tee pad 40 inward proximate the latch ridge 41 and/or by pulling the lip
23 24 proximate the ridge 25 away from the latch ridge 41 so they no longer overlap and the lid 23
24 can be opened.

25 Inside of the top portion 20, as seen in Fig. 5, is a magazine 120 for holding golf balls 15.
26 The magazine 120 has an upper ramp 127 with a dividing wall 126 and a cross over portion 128
27 where the golf balls pass through an opening in the wall 126 to access a lower ramp 129 on the
28 other side of the dividing wall 126. The lower ramp 129 ends at opening 130 where the golf ball
29 drops down approximately one golf ball diameter to ramp 32 in housing 30. The drop of
30 approximately one golf ball diameter is so that a golf ball in the queue can rest on top of the golf

1 ball on ramp 32 and the remaining golf balls will stay in a queue on ramps 129 and 127.

2 Ramp 32 is sloped downward across housing 30 to an opening at the end of the ramp (not
3 shown) for again allowing the golf ball to drop approximately one golf ball diameter to ramp 33
4 which slopes in the opposite direction from ramp 32 to a ball stopping peg 34. Ball stopping peg
5 34 stops the golf ball 15 from further rolling down ramp 33. Ramp 33 has an aperture 35, as
6 shown in Fig. 7, proximate the peg 34 for the golf ball 15 to partially drop therein, which
7 depresses the ball-engaging portion 52 of activating pedal lever 50.

8 Activating pedal lever 50 is pivotally mounted on pivot pin 51 (Fig. 6). When a golf ball
9 engages and depresses the ball engaging portion 52 (Fig. 7) of the activation pedal lever 50 it
10 rotates on pin 51 until stopped by pin 53. In this position pedal 54 is pushed upward such that it
11 is ready to be depressed by the end of a golf club or some other object which will push a golf ball
12 15 upward and over ball stopping peg 34 such that the golf ball rolls onto ramp 60 in housing 30
13 and rolls down to tilting ramp 80 which rotates on pins 81 pivotally connected to walls 62 in
14 housing 30. Stopping pegs 36 prevent the golf ball from passing over ramp 60 and help guide the
15 golf ball into place on ramp 60. Ramp 60 is integral with the top of walls 62. Tilting ramp 80 has
16 pins 81 which pivot in slots in walls 62. As shown in Fig. 8, tilting ramp 80 is counter balanced
17 by a weight placed in weight holder 82 such that the tilting ramp 80 stands upright when not
18 engaged by a golf ball. When a golf ball is present on ramp 60 it pushes tilting ramp 80
19 downward and rolls down track 83 to golf ball aperture 85 at the end of the tilting ramp 80 where
20 it is stopped from further travel by guard 84. As the golf ball 15 rolls down the tilting ramp 80
21 the ball aperture end descends to a position directly over the golf tee 90. There is preferably a
22 shield 87 at the end of the tilting ramp 80, which prevents the tilting ramp 80 from tilting beyond
23 top of the golf tee 90 and allows the golf balls to be placed on the top of the tee 90.

24 The golf tee 90, shown in Fig. 10, is preferably made of a soft rubber such that it can
25 bend with golf club impacts without damaging the tee. The golf tee 90 may be of different
26 heights to suit the user. The golf tee 90 has a round base 91 for fitting into round depression 45
27 in the tee pad 40. The tube like column 92 of the golf tee 90 passes through the tee aperture 47 in
28 the tee pad 40. Different height tees are available and can be stored on pegs 18 in housing 30.
29 The top of the tee is preferably beveled 93 to more securely hold the golf ball in the center of the
30 tee 90.

1 The golf ball teeing machine 10 as shown is molded three parts. The top portion 20
2 which is attached to the upright housing 30, preferably by snap on connectors 225 and 211 as
3 shown in Fig. 7. The tee pad 40 is hingedly connected to the upright housing 30 by hinge 205
4 such that the tee pad 40 opens to a position perpendicular to the upright housing 30. The tee pad
5 40 is securely attached to the upright housing 30 such that no separate means are needed to keep
6 the tilting ramp 80 aligned with the tee 90. The tee pad 40 opens to a position perpendicular to
7 the housing by the use of stopping pads 255 on the tee pads 40 engaging bumpers 250 on the
8 housing 30 as the tee pad 40 opens to be perpendicular to the housing 30. The bumpers 250 are
9 preferably rubber. It is important for the housing 30 to remain perpendicular to the tee pad 40
10 when in use to align the tee 90 with the tilting ramp 80. A biasing force to keep the housing 30
11 and the tee pad at 90 degrees can be provided by springs or a hump 270 on the bumpers having a
12 flat surface 250, which interacts with the stopping pads 255 on the tee pad 40 to prevent the tee
13 pad 40 from pivoting toward the housing 30. The tee pad 40 had a hinge housing portion 265
14 which attaches to a complimentary hinge housing portion on the housing 30 to secure the tee pad
15 40 to the housing 30.

16 Artificial turf 95 can be snapped on to the tee pad 40 by pegs 97 on the artificial turf
17 fitting into apertures 96 in the tee pad 40. If the artificial turn becomes worn it can be easily
18 replaced by unsnapping the worn artificial turf 95 and replacing it with new artificial turf.

19 After practicing hitting golf balls it is convenient to have a device for picking up the golf
20 balls without having to bend over. A shag stick 300 having a first hollow tube 301 inside of a
21 second hollow tube 303 and a locking mechanism 305 for fixing the position of the first hollow
22 tube 301 relative to the second hollow tube 303 allows for an extendable shag stick 300 for
23 holding golf balls therein. The golf balls are picked up by use of a clam shell 306 arrangement
24 having opposing arms 307 which separate to allow a golf ball to enter the second hollow tube
25 303 when the shag stick is pressed down over the top of a golf ball thus spreading the arms of the
26 clam shell until the center part of the ball passes the end of the claim shell arms 307. After the
27 ball is admitted to the claim shell the arms 307 close behind the ball and the ball is trapped
28 inside. When the balls are collected the cap 309 of the shag 300 stick is removed and the balls
29 can roll out of the shag stick and into the magazine or some other container.

30 In the embodiment shown in Figs 11 –13 the first hollow tube 301 has a slot 302 running

1 substantially the length of the tube 301. There is an “L” shaped portion 310 near one end of the
2 tube such that tab 315 in locking mechanism 305 which rides in slot 302 can lock tube in an
3 extended position shown in Fig. 10 by turning tube 301 relative to tube 303 and forcing tab 315
4 into the arm 320 of the “L” shaped portion 315.

5 Obviously, many modifications and variations of the present invention are possible in
6 light of the above teachings. It is therefore to be understood that, within the scope of the
7 appended claims, the invention may be practiced otherwise than as specifically described.

8 What is claimed is:
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